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DOCTOR EN CIENCIAS CON MENCIÓN EN QUÍMICA, UNIVERSIDAD DE CONCEPCIÓN
2012, CHILE

LÍNEA(S) DE INVESTIGACIÓN O ÁREAS DE TRABAJO

✓ CIENCIA DE LOS POLÍMEROS

LISTADO DE PUBLICACIONES EN LOS ÚLTIMOS 10 AÑOS.

Bruno F. Urbano, Joel Paredes, Bernabé L. Rivas, Ozge Kusku, Nalan Kabay, and Marek Bryjak. *Arsenic removal by a water-insoluble copolymer based on N-methyl-D-glucamine and quaternary ammonium groups*. **Environmental Progress and Sustainable Energy**, DOI 10.1002/ep.11905. En prensa

Ozge Kusku, Bernabé L. Rivas, Bruno F. Urbano, Müşerref Arda, Nalan Kabay, and Marek Bryjak. *A comparative study for removal of Cr(VI) by ion exchange resins bearing quaternary ammonium groups*. **Journal of Chemical Technology and Biotechnology**, **ACCEPTADA**.

Cristian H. Campos, Bruno F. Urbano, Bernabé L. Rivas. *Synthesis and Characterization of Organic-Inorganic hybrid composites from poly(acrylic acid)-[3-(Trimethoxysilyl)propylmethacrylate]-Al₂O₃*. **Composite: Part B**, **57**, 1 – 7, 2014

Bruno F. Urbano, Bernabé L. Rivas. *Sorption properties of chelating polymer-clay nanocomposite resin based on iminodiacetic acid and montmorillonite: water absorbency, metal ion uptake, selectivity, and kinetics*. **Journal of Chemical Technology and Biotechnology**, **89**, 249 – 258, 2014.

Bruno F. Urbano, Bernabé L. Rivas. *Synthesis, characterization, and sorption properties of water-insoluble poly(2-acrylamido-2-methyl-1-propane sulfonic acid)-montmorillonite composite*. **Polymer Bulletin**, **70**, 1143-1162, 2013.

Paola Santander, Bernabé L. Rivas, Bruno F. Urbano, Idil Yilmaz Ipek, Gulsah Ozkula, Muserref Arda, Mithat Yüksel, Marek Bryjak, Tomasz Kozlecki, Nalan Kabay. *Removal of boron from geothermal water by a novel boron selective resin*. **Desalination**, **310**, 102–108, 2013.

Leandro Toledo, Bernabé L. Rivas, Bruno F. Urbano, Julio Sánchez. *Novel N-methyl-D-glucamine-based water-soluble polymer and its potential application in the removal of arsenic*. **Separation and Purification Technology**, **103**, 1–7, 2013.

Bruno F. Urbano, Bernabé L. Rivas, Francisco Martínez, Spiro D. Alexandratos. *Water-insoluble polymer-clay nano composite ion-exchange resin based on N-methyl-D-glucamine ligand groups for arsenic removal*. **Reactive & Functional Polymers**, **72**, 642-649, 2012.

Bruno F. Urbano, Bernabé L. Rivas, Francisco Martínez, Spiro D. Alexandratos. *Equilibrium and kinetic study of arsenic sorption by water-insoluble nanocomposite resin of poly[N-(4-vinylbenzyl)-N-methyl-D-glucamine]-montmorillonite*. **Chemical Engineering Journal**, **193 – 194**, 21 – 30, 2012.

Bernabé L. Rivas, Bruno F. Urbano, S. Amalia Pooley, Ingrid Bustos, Néstor Escalona. *Mercury and lead sorption properties of poly(ethyleneimine) coated onto silica gel*. **Polymer Bulletin**. **68**, 1577 – 1588, 2012. (FI: 1.33)

Bernabé L. Rivas, Bruno F. Urbano, Carla Muñoz. *Metal ion sorption properties of water-insoluble resins based on sodium styrene sulfonate and different comonomers*. **Polymer Bulletin**, **68**, 1537 – 1549, 2012.

Bruno F. Urbano, Bernabé L. Rivas. *Poly(sodium 4-styrene sulfonate) and poly(2-acrylamido glycolic acid) polymer–clay ion exchange resins with enhanced mechanical properties and metal ion retention*. **Polymer International**, **61**, 23-29, 2012.

Constain Salamanca, Bruno F. Urbano, Andrés Olea. *Potential drug delivery system: study of the association of a model nitroimidazolic drug with aggregates of amphiphilic polymers on aqueous solution*. **Brazilian Journal of Pharmaceutical Science**, **47 (4)**, 725 – 731, 2011.

Bruno F. Urbano, Bernabé L. Rivas. *Poly(4-styrene sulfonate) and poly(2-acrylamidoglycolic acid) nanocomposite hydrogels. Montmorillonite effect on water absorption, thermal, and rheological properties*. **Polymer Bulletin**, **67**, 1823-1836, 2011.

LISTADO DE PROYECTOS DE INVESTIGACIÓN EN LOS ÚLTIMOS 10 AÑOS

- ✓ Título: Innovative materials and methods for water treatment, CHILTURPOL2.
Financiamiento: 7th Framework Programme of European Union, Marie Curie Actions International Research Staff Exchange Scheme “IRSES”, PIRSES-GA-2010-269153
Coordinador : Marek Bryjak, Wroclaw University, Polonia
Investigador Responsable en Turquía: Nalan Kabay, Ege University, Turquía
Investigador Responsable en Chile: Bernabé L. Rivas, Universidad de Concepción, Chile.
Investigadores participantes en Chile: Eduardo Pereira, Mónica Pérez, Manuel Palencia, Julio Sánchez, **Bruno Urbano**.
Período: 2011-2014

Proyectos patrocinados por instituciones nacionales.

- ✓ Fondecyt Iniciación 2012 nº 11121291 (2012-2014)
Título: Arsenic removal by nanocomposite ion exchange resins based on modified nanoparticles acting as multifunctional crosslinker and reinforcement agent
Investigador Responsable: **Bruno F. Urbano**

✓ ECOS-CONICYT (2014 – 2017)

Título: Polymer-metal oxide nanocomposites for photocatalytic water oxidation

Investigador Principal (Chile): Bernabé L. Rivas.

Investigador principal (Francia): Jean Claude Moutet

✓ CONICYT/CNRS (Abril 2013-Abril 2014)

Título: Polymer-metal oxide nanocomposites for photocatalytic water oxidation

Investigador Principal (Chile): Bernabé L. Rivas.

Co-investigadores (Chile): Eduardo Pereira, Mónica Pérez, Julio Sanchez, **Bruno Urbano**,
Hernán Valle.

Investigador principal (Francia): Marie-Noelle Collomb

Co-investigadores (Francia): Jean Claude Moutet, Jerome Fortag

✓ CONICYT-COLCIENCIAS (2009 – 2012)

Título: Síntesis de nanomateriales biodegradables a partir de monómeros derivados de
aceite de higuera y arcillas modificadas.

Investigador principal (Chile): Bernabé L. Rivas

Investigador principal (Colombia): Luis Alberto Rios

Co-investigadores: Mónica Pérez, Bruno Urbano